

Project No. 1251-100
Crude Oil Tank Farms Project, Agrood Area 30 (Module-1)



System ID	030-EL-009
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System Description	Substation Interposing Relay Panel System
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Sr.	Pre-Commissioning and Commissioning Dossier Index	Applicable (Yes/No)
1	Mechanical Completion Certificate (MCC)	
2	Ready for Startup Certificate (RFSU)	
3	System Punch Lists	
4	System Limits Marked Up P&ID	
5	System Index	
6	Piping Pre-Commissioning	
	6.01) Piping Test Packs	
	6.02) Piping Pre-commissioning Check Lists	
7	Piping Commissioning	
	7.01) Service Test, GLT, CLT and N2 Purging Certificates	
	7.02) Piping Commissioning Check Lists	
Sr.	Pre-Commissioning and Commissioning Dossier Index	Applicable (Yes/No)
8	Mechanical Pre-Commissioning	
	8.01) System Mechanical Index	
	8.02) Equipment Drawings	
	8.03) Equipment Datasheets	
	8.04) Boxing-up Certificates	

	8.05) Grouting Certificates	
	8.06) Pre-Alignment Certificates	
	8.07) Mechanical Pre-Commissioning Checklists	
9	Mechanical Commissioning	
	9.01) Final Alignment Certificates	
	9.02) Motor Solo Run Certificates	
	9.03) Mechanical Run Test (MRT) Certificates	
	9.04) Mechanical Commissioning Checklists	
	9.05) Mechanical Supplier Check Lists & Reports	
10	Instrumentation Pre-Commissioning	
	10.01) System Instrument Index	
	10.02) Instrument Data Sheets	
	10.03) Instrument Cable Schedule	
	10.04) System Instrumentation Wiring Diagram	
	10.05) Hook-up Drawing (Mechanical & Pneumatic)	
	10.06) Instruments Cables Schedule	
	10.07) Instruments Cables Laying Certificates	
	10.08) Instruments Cables Termination Certificates	
	10.09) Instruments Cables Testing Certificates	
	10.10) Instruments Calibration Certificates	
	10.11) Instrument Loop Checks Certificates	
	10.12) Instrumentation Pre-Commissioning Check Lists	
	10.13) Instrumentation Supplier Check Lists & Reports	
11	Instrumentation Commissioning	
	11.01) Instrumentation Function Test Certificates	
	11.02) Instrumentation Supplier Check Lists & Reports	
Sr.	Pre-Commissioning and Commissioning Dossier Index	Applicable (Yes/No)
12	Electrical Pre-Commissioning	
	12.01) System Electrical Index	
	12.02) Electrical Drawings	
	12.03) Motor Datasheets	
	12.04) Electrical Cables Schedule	
	12.05) Electrical Cables Laying Certificates	
	12.06) Electrical Cables Testing Certificates	
	12.07) Electrical Cables Termination Certificates	
	12.08) FAT Reports & Certificates	
	12.09) SAT Reports & Certificates	
	12.10) Electrical Pre-Commissioning Check Lists	
	12.11) Electrical Supplier Check Lists & Reports	

13	Electrical Commissioning	
	13.01) Electrical -Commissioning Check Lists	
	13.02) Electrical Supplier Check Lists & Reports	
14	Red Marked-up Drawings	
	14.01) P&ID	
	14.02) Instrumentation Drawings	
	14.03) Electrical Drawings	

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Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

1-Mechanical Completion Certificate (MCC)

SYSTEM MECHANICAL COMPLETION CERTIFICATE (MCC)

PROJECT TITLE : CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

PROJECT No : 01251-100




SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

THIS IS TO CERTIFY THAT:

- THE ABOVE SYSTEM HAS BEEN FABRICATED, ERECTED, INSTALLED AND TESTED TO THE REQUIREMENTS OF THE CONTRACT DRAWINGS, SPECIFICATIONS, THE APPLICABLE CODES AND STANDARDS.
- ALL PRE-COMMISSIONING RELEVANT ACTIVITIES, TESTS, INSPECTIONS AND CHECKS HAVE BEEN CARRIED OUT FOR THIS SYSTEM AND FOUND ACCEPTABLE.
- Q/C DOCUMENTATION OF THE ABOVE SYSTEM HAS BEEN AUDITED BY THE CUSTOMER SITE QUALITY CONTROL AND FOUND COMPLETED.
- ALL PUNCH LIST ITEMS CATEGORY (A) IN THIS SUBSYSTEM WERE CLEARED.
- THIS SYTEM IS MECHANICALLY COMPLETED ON THE DATE 28/03/2021 AND READY FOR COMMISSIONING (RFC) WITH THE FOLLOWING EXCEPTIONS.

EXCEPTIONS :

COMPANY	PETROJET	ENPPI	PMC
NAME	Eng. Ahmed Nageeb	Mohamed Abbass	M. Saleh
TITLE	E&I Engineer	Site Manager	Site Manager
SIGNATURE			
DATE	29-3-2021	29-03-2021	29-03-2021



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CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

2- Ready for Startup Certificate (RFSU)

READY FOR START UP CERTIFICATE

PROJECT TITLE : EGPC CRUDE OIL TANK FARMS PROJECT (AGROOD-02)

PROJECT No. : 1251-100


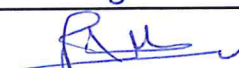

SYSTEM /AREA /PLANT : Substation Interposing Relay Panel System

SYSTEM /AREA /PLANT No. : 030-EL-009

THIS IS TO CERTIFY THAT:

- THE MENTIONED SYSTEM /AREA /PLANT IS READY FOR START UP WHERE ALL MECHANICAL WORKS, PRECOMMISSIONING AND COMMISSIONING ACTIVITIES HAVE BEEN SUCCESSFULLY COMPLETED.
- MECHANICAL COMPLETION CERTIFICATE(S) FOR THE MENTIONED SYSTEM / AREA / PLANT HAVE BEEN SIGNED.
- ISSUANCE OF THIS READY FOR START UP CERTIFICATE(S) SHALL NOT RELIEVE CONTRACTOR(S) FROM THEIR OBLIGATIONS TO COMPLETE THE REMAINING SYSTEMS NOR FROM THEIR WARRANTY OBLIGATIONS AND OTHER PROVISIONS OF THE CONTRACT.
- THE FOLLOWING EXCEPTIONS AGREED TO BE CLEARED AFTER START UP AND WILL NOT PREVENT START UP ACTIVITIES.

EXCEPTIONS :

COMPANY	CONSORTIUM	PPC
NAME	Ahmed El Shahr	M. Ibrahim
TITLE	Commissioning Mgr	Elec. engineer
SIGNATURE		
DATE	31-5-2021	



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

3- System Punch Lists



COMPANY	PTJ	ENPPI	PMC
NAME		<i>Ramona Lopez</i>	<i>M. Omar</i>
SIGN.	<i>[Signature]</i>		<i>28-3-2021</i>
DATE			



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System ID	030-EL-009
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4- System Limits Marked Up P&ID



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System Description	Substation Interposing Relay Panel System

5- System Index



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

6- Piping Pre-Commissioning



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

6.01- Piping Test Packs



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System Description	Substation Interposing Relay Panel System

6.02- Piping Pre-commissioning Check Lists



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

7- Piping Commissioning



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System Description	Substation Interposing Relay Panel System

7.01- Service Test, GLT, CLT and N2 Purging Certificates



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System Description	Substation Interposing Relay Panel System

7.02- Piping Commissioning Check Lists



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8- Mechanical Pre-Commissioning



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8.01- System Mechanical Index



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System Description	Substation Interposing Relay Panel System

8.02- Equipment Drawings



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8.03- Equipment Datasheets



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8.04- Boxing-up Certificates



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8.05- Grouting Certificates



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

8.06- Pre-Alignment Certificates



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8.07- Mechanical Pre-Commissioning Checklists



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9- Mechanical Commissioning



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

9.01- Final Alignment Certificates



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System ID	030-EL-009
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9.02- Motor Solo Run Certificates



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9.03- Mechanical Run Test (MRT) Certificates



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9.04- Mechanical Commissioning Checklists



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System Description	Substation Interposing Relay Panel System

9.05- Mechanical Supplier Check Lists & Reports



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System Description	Substation Interposing Relay Panel System

10- Instrumentation Pre-Commissioning



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

10.01- System Instrument Index



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

10.02- Instrument Data Sheets



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System Description	Substation Interposing Relay Panel System

10.03- Instrument Cable Schedule



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10.04- System Instrumentation Wiring Diagram



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10.05- Hook-up Drawing (Mechanical & Pneumatic)



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

10.06- Instruments Cables Schedule



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System ID	030-EL-009
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10.07- Instruments Cables Laying Certificates



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10.08- Instruments Cables Termination Certificates



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10.09- Instruments Cables Testing Certificates



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System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

10.10- Instruments Calibration Certificates



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10.11- Instrument Loop Checks Certificates



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10.12- Instrumentation Pre-Commissioning Check Lists



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10.13- Instrumentation Supplier Check Lists & Reports



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11- Instrumentation Commissioning



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System Description	Substation Interposing Relay Panel System

11.02- Instrumentation Supplier Check Lists & Reports



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12- Electrical Pre-Commissioning



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CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



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System Description	Substation Interposing Relay Panel System

12.01- System Electrical Index

030-EL-009	Substation Interposing Relay Panel System	Electrical	030-SUB-IRP - 1	Interposing Relay Panel	Form Type	Check Forms ID
030-EL-009	Substation Interposing Relay Panel System	Electrical	D-030-SUB-IRP-1	LV Cable	Checklist	EL-13 A /EL-30 A
030-EL-009	Substation Interposing Relay Panel System	Electrical	P-030-SUB-IRP-1	LV Cable	Checklist	EL-31 A
					Checklist	EL-31 A

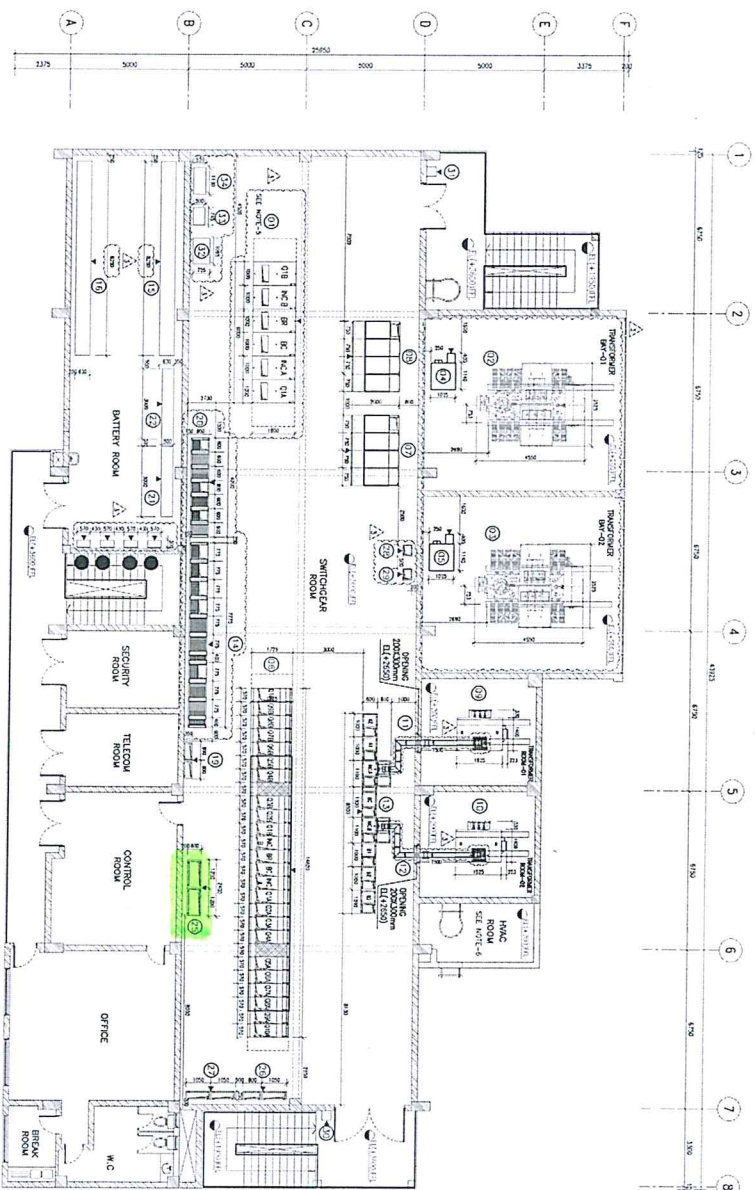
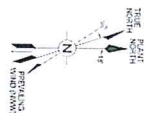


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CRUDE OIL TANK FARM PROJECT (AGROOD AREA)

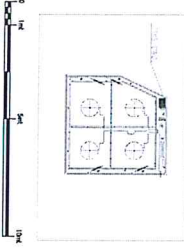
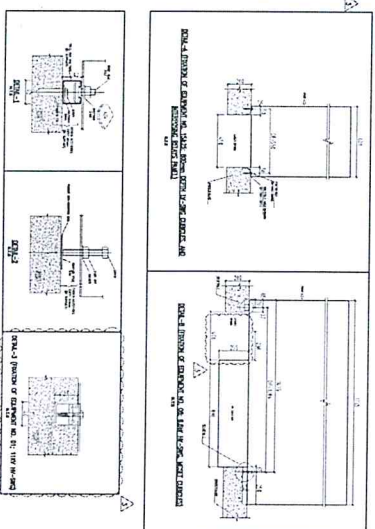


System ID	030-EL-009
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12.02- Electrical Drawings

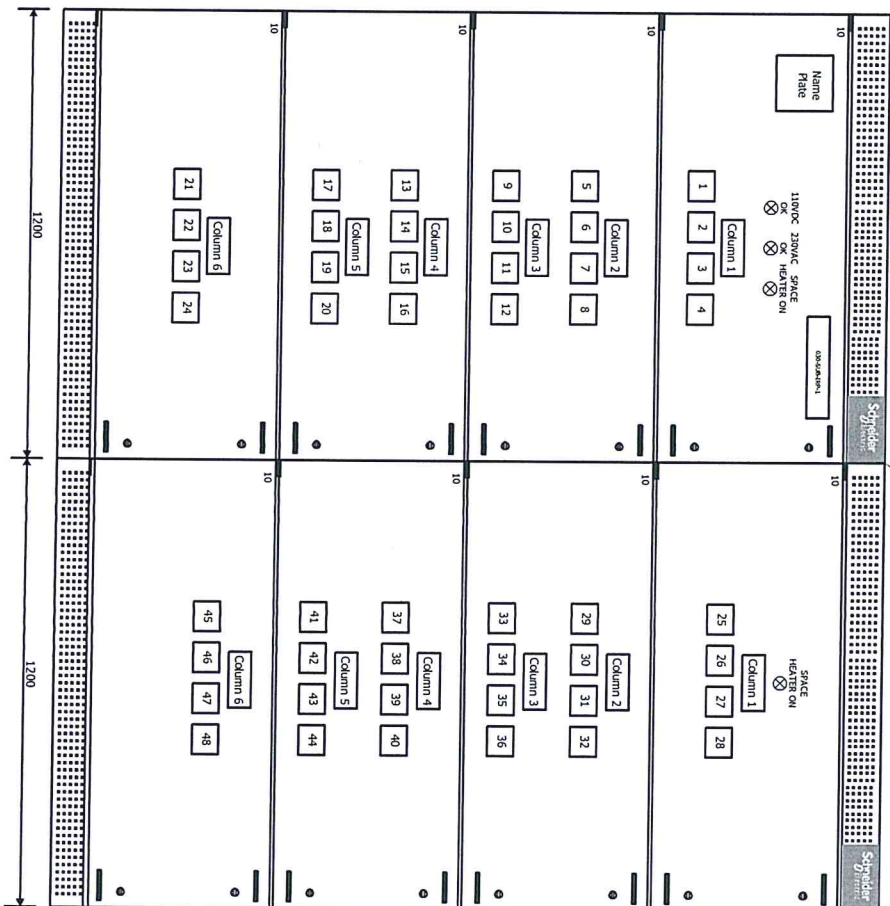


Equipment No.	Equipment Tag	Description	Flavor
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3	DS-50-HW-1B	11/15/2014 08:30:00 10/15/2014	Flavor
4	DS-50-HW-1C	11/15/2014 08:30:00 10/15/2014	Flavor
5	DS-50-HW-1D	11/15/2014 08:30:00 10/15/2014	Flavor
6	DS-50-HW-1E	11/15/2014 08:30:00 10/15/2014	Flavor
7	DS-50-HW-1F	11/15/2014 08:30:00 10/15/2014	Flavor
8	DS-50-HW-1G	11/15/2014 08:30:00 10/15/2014	Flavor
9	DS-50-HW-1H	11/15/2014 08:30:00 10/15/2014	Flavor
10	DS-50-HW-1I	11/15/2014 08:30:00 10/15/2014	Flavor
11	DS-50-HW-1J	11/15/2014 08:30:00 10/15/2014	Flavor
12	DS-50-HW-1K	11/15/2014 08:30:00 10/15/2014	Flavor
13	DS-50-HW-1L	11/15/2014 08:30:00 10/15/2014	Flavor
14	DS-50-HW-1M	11/15/2014 08:30:00 10/15/2014	Flavor
15	DS-50-HW-1N	11/15/2014 08:30:00 10/15/2014	Flavor
16	DS-50-HW-1O	11/15/2014 08:30:00 10/15/2014	Flavor
17	DS-50-HW-1P	11/15/2014 08:30:00 10/15/2014	Flavor
18	DS-50-HW-1Q	11/15/2014 08:30:00 10/15/2014	Flavor
19	DS-50-HW-1R	11/15/2014 08:30:00 10/15/2014	Flavor
20	DS-50-HW-1S	11/15/2014 08:30:00 10/15/2014	Flavor
21	DS-50-HW-1T	11/15/2014 08:30:00 10/15/2014	Flavor
22	DS-50-HW-1U	11/15/2014 08:30:00 10/15/2014	Flavor
23	DS-50-HW-1V	11/15/2014 08:30:00 10/15/2014	Flavor
24	DS-50-HW-1W	11/15/2014 08:30:00 10/15/2014	Flavor
25	DS-50-HW-1X	11/15/2014 08:30:00 10/15/2014	Flavor
26	DS-50-HW-1Y	11/15/2014 08:30:00 10/15/2014	Flavor
27	DS-50-HW-1Z	11/15/2014 08:30:00 10/15/2014	Flavor
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30	DS-50-HW-2C	11/15/2014 08:30:00 10/15/2014	Flavor
31	DS-50-HW-2D	11/15/2014 08:30:00 10/15/2014	Flavor
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52	DS-50-HW-2Y	11/15/2014 08:30:00 10/15/2014	Flavor
53	DS-50-HW-2Z	11/15/2014 08:30:00 10/15/2014	Flavor
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57	DS-50-HW-3D	11/15/2014 08:30:00 10/15/2014	Flavor
58	DS-50-HW-3E	11/15/2014 08:30:00 10/15/2014	Flavor
59	DS-50-HW-3F	11/15/2014 08:30:00 10/15/2014	Flavor
60	DS-50-HW-3G	11/15/2014 08:30:00 10/15/2014	Flavor
61	DS-50-HW-3H	11/15/2014 08:30:00 10/15/2014	Flavor
62	DS-50-HW-3I	11/15/2014 08:30:00 10/15/2014	Flavor
63	DS-50-HW-3J	11/15/2014 08:30:00 10/15/2014	Flavor
64	DS-50-HW-3K	11/15/2014 08:30:00 10/15/2014	Flavor
65	DS-50-HW-3L	11/15/2014 08:30:00 10/15/2014	Flavor
66	DS-50-HW-3M	11/15/2014 08:30:00 10/15/2014	Flavor
67	DS-50-HW-3N	11/15/2014 08:30:00 10/15/2014	Flavor
68	DS-50-HW-3O	11/15/2014 08:30:00 10/15/2014	Flavor
69	DS-50-HW-3P	11/15/2014 08:30:00 10/15/2014	Flavor
70	DS-50-HW-3Q	11/15/2014 08:30:00 10/15/2014	Flavor
71	DS-50-HW-3R	11/15/2014 08:30:00 10/15/2014	Flavor
72	DS-50-HW-3S	11/15/2014 08:30:00 10/15/2014	Flavor
73	DS-50-HW-3T	11/15/2014 08:30:00 10/15/2014	Flavor
74	DS-50-HW-3U	11/15/2014 08:30:00 10/15/2014	Flavor
75	DS-50-HW-3V	11/15/2014 08:30:00 10/15/2014	Flavor
76	DS-50-HW-3W	11/15/2014 08:30:00 10/15/2014	Flavor
77	DS-50-HW-3X	11/15/2014 08:30:00 10/15/2014	Flavor
78	DS-50-HW-3Y	11/15/2014 08:30:00 10/15/2014	Flavor
79	DS-50-HW-3Z	11/15/2014 08:30:00 10/15/2014	Flavor
80	DS-50-HW-4A	11/15/2014 08:30:00 10/15/2014	Flavor
81	DS-50-HW-4B	11/15/2014 08:30:00 10/15/2014	Flavor
82	DS-50-HW-4C	11/15/2014 08:30:00 10/15/2014	Flavor
83	DS-50-HW-4D	11/15/2014 08:30:00 10/15/2014	Flavor
84	DS-50-HW-4E	11/15/2014 08:30:00 10/15/2014	Flavor
85	DS-50-HW-4F	11/15/2014 08:30:00 10/15/2014	Flavor
86	DS-50-HW-4G	11/15/2014 08:30:00 10/15/2014	Flavor
87	DS-50-HW-4H	11/15/2014 08:30:00 10/15/2014	Flavor
88	DS-50-HW-4I	11/15/2014 08:30:00 10/15/2014	Flavor
89	DS-50-HW-4J	11/15/2014 08:30:00 10/15/2014	Flavor
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92	DS-50-HW-4M	11/15/2014 08:30:00 10/15/2014	Flavor
93	DS-50-HW-4N	11/15/2014 08:30:00 10/15/2014	Flavor
94	DS-50-HW-4O	11/15/2014 08:30:00 10/15/2014	Flavor
95	DS-50-HW-4P	11/15/2014 08:30:00 10/15/2014	Flavor
96	DS-50-HW-4Q	11/15/2014 08:30:00 10/15/2014	Flavor
97	DS-50-HW-4R	11/15/2014 08:30:00 10/15/2014	Flavor
98	DS-50-HW-4S	11/15/2014 08:30:00 10/15/2014	Flavor
99	DS-50-HW-4T	11/15/2014 08:30:00 10/15/2014	Flavor
100	DS-50-HW-4U	11/15/2014 08:30:00 10/15/2014	Flavor

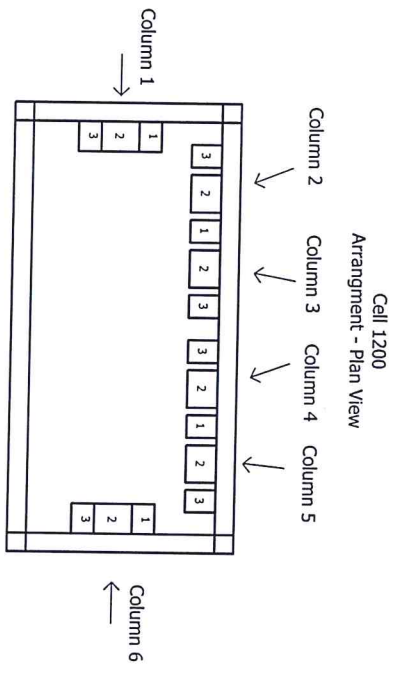
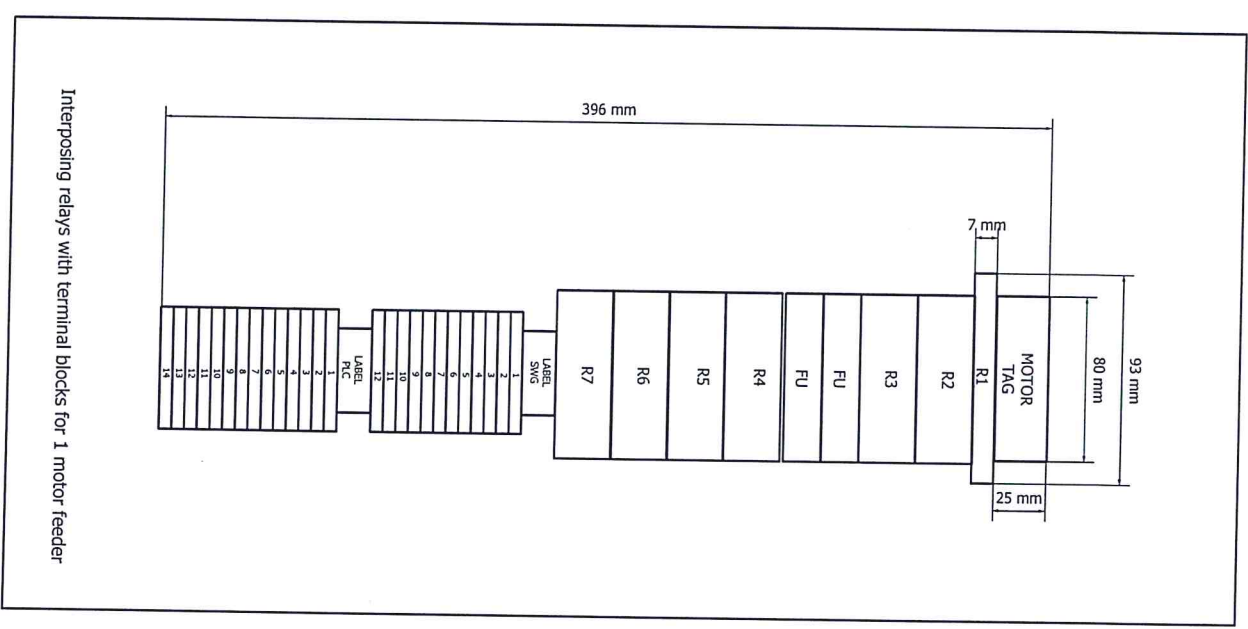
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<p>42. AIRBORNE DISCREET</p> <p>43. AIRBORNE VOICED RESOLVER</p> <p>44. AIRBORNE VOICED RESOLVER</p> <p>45. AIRBORNE VOICED RESOLVER</p> <p>46. DIRECT CURRENT</p> <p>47. DIRECT CURRENT</p> <p>48. DIRECT CURRENT</p> <p>49. DIRECT CURRENT</p> <p>50. DIRECT CURRENT</p> <p>51. DIRECT CURRENT</p> <p>52. DIRECT CURRENT</p> <p>53. DIRECT CURRENT</p> <p>54. DIRECT CURRENT</p> <p>55. DIRECT CURRENT</p> <p>56. DIRECT CURRENT</p> <p>57. DIRECT CURRENT</p> <p>58. DIRECT CURRENT</p> <p>59. DIRECT CURRENT</p> <p>60. DIRECT CURRENT</p> <p>61. DIRECT CURRENT</p> <p>62. DIRECT CURRENT</p> <p>63. DIRECT CURRENT</p> <p>64. DIRECT CURRENT</p> <p>65. DIRECT CURRENT</p> <p>66. DIRECT CURRENT</p> <p>67. DIRECT CURRENT</p> <p>68. DIRECT CURRENT</p> <p>69. DIRECT CURRENT</p> <p>70. DIRECT CURRENT</p> <p>71. DIRECT CURRENT</p> <p>72. DIRECT CURRENT</p> <p>73. DIRECT CURRENT</p> <p>74. DIRECT CURRENT</p> <p>75. DIRECT CURRENT</p> <p>76. DIRECT CURRENT</p> <p>77. DIRECT CURRENT</p> <p>78. DIRECT CURRENT</p> <p>79. DIRECT CURRENT</p> <p>80. DIRECT CURRENT</p> <p>81. DIRECT CURRENT</p> <p>82. DIRECT CURRENT</p> <p>83. DIRECT CURRENT</p> <p>84. DIRECT CURRENT</p> <p>85. DIRECT CURRENT</p> <p>86. DIRECT CURRENT</p> <p>87. DIRECT CURRENT</p> <p>88. DIRECT CURRENT</p> <p>89. DIRECT CURRENT</p> <p>90. DIRECT CURRENT</p> <p>91. DIRECT CURRENT</p> <p>92. DIRECT CURRENT</p> <p>93. DIRECT CURRENT</p> <p>94. DIRECT CURRENT</p> <p>95. DIRECT CURRENT</p> <p>96. DIRECT CURRENT</p> <p>97. DIRECT CURRENT</p> <p>98. DIRECT CURRENT</p> <p>99. DIRECT CURRENT</p> <p>100. DIRECT CURRENT</p>		<p>KEY PLAN</p>	

11-030	EGPC THE EGYPTIAN GENERAL PETROLEUM CO. EGPC القوة العامة للنفط والغاز م.ع.ج. - اقليم القاهرة الجديدة المتكامل القاهرة - مصر		NO : 18 THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) 11-0300
11-030	EGPC CRUDE OIL TANK FARM AGROOD AREA (MODULE-1) SUBSTATION ELECTRICAL EQUIPMENT LAYOUT المركز الكهربائي للصفوف والأكشاك EGPC		NO : 18 THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC) 11-0300

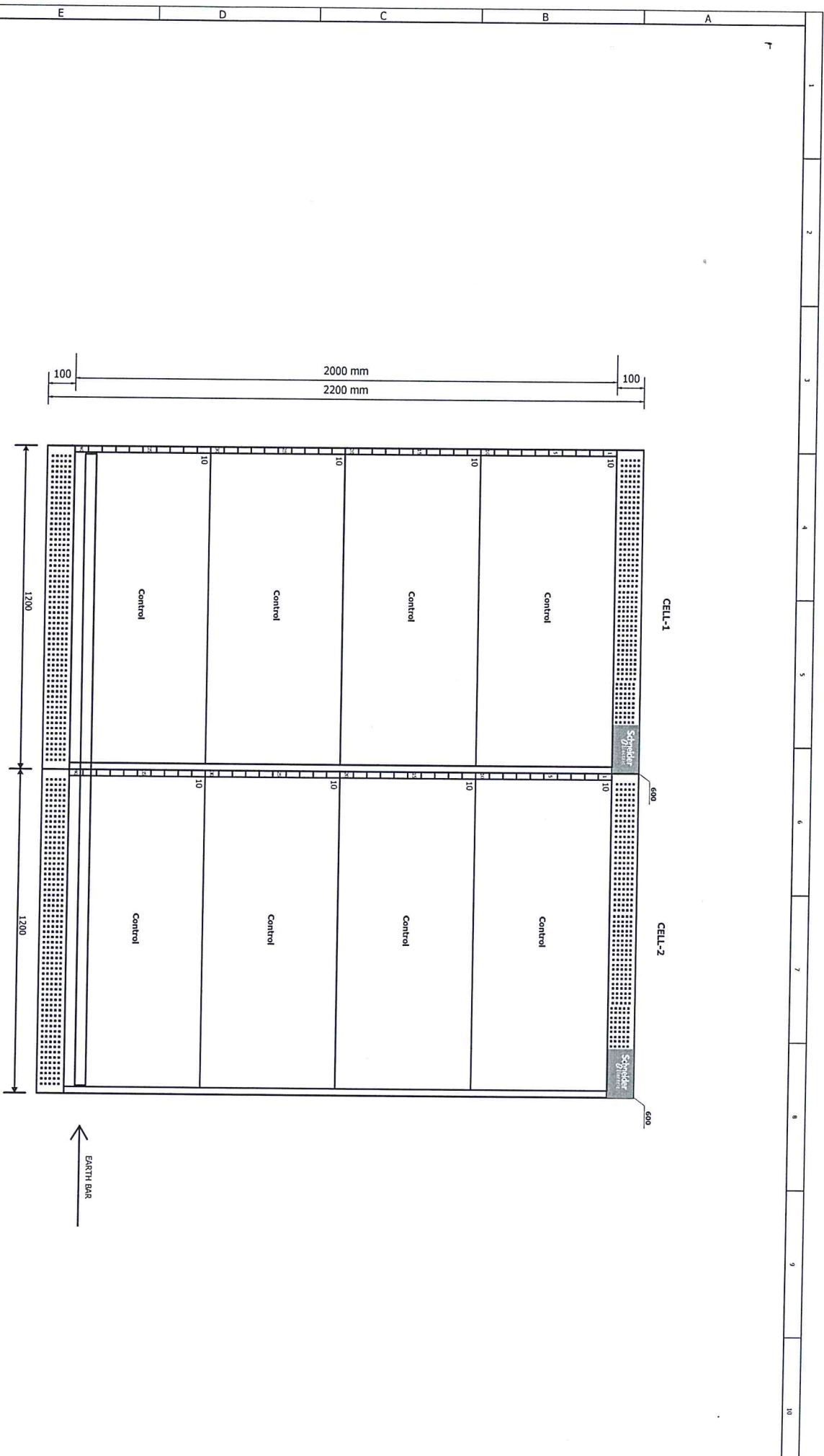


D	06-Aug-20	Issue for Production	A	11-Mar-20	FIRST ISSUE
C	27-Jun-20	Issue for Production			
B	29-Apr-20	CUSTOMER MODIFICATION			
A					
Rev.	Date	Page revision description	Rev.	Date	Page revision description
<div>Schneider Electric NEA Schneider Electric & Electronic</div>					
Customer name EGPC/Empipi					
Project description EGPC Guide oil Tank Farm					
Page description			Checked By		
Layout With Doors			MehAbdullah		
Item Name			Approved by		
Project No			Ahmed Saleh		
EIO Number			Item Number		
Drawing number			2-5		
Rev.			Total pages		



- 1- Electrical Duct Size 6 cm x 8 cm
- 2- Control relays
- 3- Instrument Duct Size 6 cm x 8 cm

D	06-Aug-20	Issue for Production	A	11-Mar-20	FIRST ISSUE	Schneider Electric NEA	Customer name	EGPC/Enppi	Page description	Checked by	Approved by	Item Number	Page
C	27-Jun-20	Issue for Production				Schneider Electric	EGPC/Enppi	Project description	Internal Arrangement	Mah. Abdullah	Ahmed Saleh	2-5	Total pages
B	29-Apr-20	CUSTOMER MODIFICATION										32444208	Revision
Rev.	Date	Page revision description	Rev	Date	Page revision description	EGPC Crude oil Tank Farm			Agrood Area 030-SUB-IRP-1	O10.004			



D	06-Aug-20	Issue for Production	A	11-Mar-20	FIRST ISSUE	Schneider Electric NEA			
C	27-Jun-20	Issue for Production				Schneider Electric			
B	29-Apr-20	CUSTOMER MODIFICATION				Customer name ESCP/Enppi			
Rev.	Date	Page revision description	Rev.	Date	Page revision description	Project description ESCP Crude oil Tank Farm			
						Page description			
						Layout Without Doors			
						Checked by Mah.Abdullah			
						Project no. 010.004			
						Approved By Ahmed Saleh			
						ETO Number			
						Item Number 2-5			
						Drawing number 32444208			
						Page Total pages			
						Revision			
						Agrofeed Area 030-SUB-IRP-1			



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.03- Motor Datasheets



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

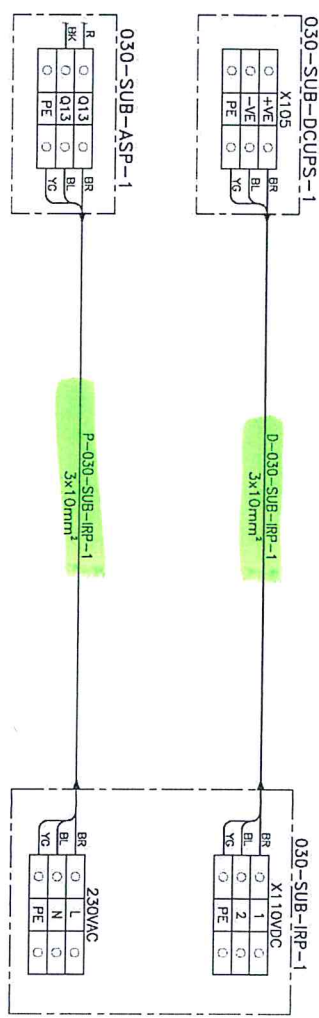
12.04- Electrical Cables Schedule

PAGE	Cable Mark	GL1	FROM	TO	GL2	CABLEService	Service Voltage	KW	Size	Type	L
19	D-030-SUB-RP-1	WP	030-SUB-DCUBS-1	030-SUB-RP-1	WP	DC FEEDER	110VDC	1.5	3x10	3D	30
19	P-030-SUB-RP-1	WP	030-SUB-ASP-1 (Q13)	030-SUB-RP-1	WP	1PH POWER FEEDER	230VAC	1.0	3x10	3E	25

SUBSTATION AND CONTROL BUILDING

FIELD

SWITCHGEAR ROOM



THIS DRAWING IS A NOT BE USED FOR CONSTRUCTION OF ANYTHING WITHOUT THE APPROVAL OF THE ENGINEER. IT IS THE RESPONSIBILITY OF THE USER TO ENSURE THAT THE DRAWING IS USED IN THE CORRECT MANNER AND THAT THE INFORMATION PROVIDED IS ACCURATE AND UP-TO-DATE. THE USER SHALL BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS IN THE DRAWING AND FOR ANY DAMAGE OR LOSS OF DATA OR INFORMATION RESULTING FROM THE USE OF THIS DRAWING. THE USER SHALL BE RESPONSIBLE FOR ANY DAMAGE OR LOSS OF DATA OR INFORMATION RESULTING FROM THE USE OF THIS DRAWING.

EGPC
THE EGYPTIAN GENERAL PETROLEUM CORPORATION (EGPC)
EGPC

الموقع: المنطقة العامة للنفط
الاسم: المنطقة العامة للنفط
الاسم: المنطقة العامة للنفط

EGPC CRUDE OIL TANK FARM
ASROOD AREA (MODULE-1)
ELECTRICAL INTERCONNECTION & WIRING DIAGRAM
INTERPOSING RELAY PANEL
(030-SUB-IRP-1)

الشركة العامة للنفط والغاز
Happi

ENGINEERING FOR THE PETROLEUM AND PROCESS INDUSTRIES
SCALE: NONE
DRAWING NUMBER: 01251-100-030-EWI-001 (01 OF 078)
DATE: 2013.05



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.05- Electrical Cables Laying Certificates



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.06- Electrical Cables Testing Certificates



Enppi

EGPC CRUDE OIL TANK FARM



INSPECTION AND TEST REPORT FOR

CABLE INSULATION RESISTANCE TEST

INSPECTION REPORT NUMBER

PTJ-ELE-RFI-

INSPECTION DATE & TIME

INSTRUMENT TYPE:

HIGH VOLTAGE INSULATION TESTER-SANWA-MG5000

SERIAL:

17015900385

SERVICE VOLTAGE: 400

TEST VOLTAGE: 1000

AREA / PACKAGE:
SUBSTATION

SYSTEM NO.:

SHEET NO

DOCUMENT NO.

ITR-EL-0006A

DISCIPLINE

ELECTRICAL

SUBSTATION														
NO	Item/Tag NO.	CABLE SIZE	Continuity Test	PHASE TO PHASE			PHASE TO NUETRAL "M.Ohm"			PHASES & NUETRAL TO ARMOR "M.Ohm"			RESULT	
				BR-BK	BR-GR	BK-GR	BR-B	BK-B	GR-B	BR-ARM	BK-ARM	GR-ARM	B-ARM	Pass
17	P-030-SUB-LPDP-1	3.5x120	✓	OL	OL	OL	OL							✓
18	P-030-SUB-ASP-1	3.5x120	✓	OL	OL	OL	OL							✓
19	P-030-EPM1-UPDP-1	3.5x50	✓	OL	OL	OL	OL							✓
20	P1-030-SUB-ACUPS-1	3x10	✓	OL	OL		OL							✓
21	P-030-SUB-IRP-1	3x10	✓				OL							✓
22	D-030-SUB-LVSWG-1A	3x10	✓				OL							✓
23	D-030-SUB-LVSWG-1B	3x10	✓				OL							✓
24	D-030-SUB-IRP-1	3x10	✓				OL							✓
25	P1-030-SUB-LVSWG-1A	3x10	✓				OL							✓
26	P1-030-SUB-LVSWG-1B	3x10	✓				OL							✓
27	C1-030-SUB-ACUPS-1	3x2.5	✓				OL							✓
28	C2-030-SUB-ACUPS-1	3x2.5	✓				OL							✓
29	C1-030-SUB-DCUPS-1	3x2.5	✓				OL							✓
30	C2-030-SUB-DCUPS-1	3x2.5	✓				OL							✓
31	P-030-SUB-AVR-1A	3x4	✓				OL							✓
32	P-030-SUB-AVR-1B	3x4	✓				OL							✓

Remarks :-

Reference :-

	PETROJET	ENPPI	PMC

ITR-EL-0006A



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.07- Electrical Cables Termination Certificates

**Enppi****EGPC CRUDE OIL TANK FARM**Owner : **Egyptian General Petroleum Corporation (EGPC)**Project No: 01251-100-030
:01251-100-031Contractor **CONSORTIUM (ENPPI / PETROJET)**Document No: ITR-QC-0001
Revision No. : 00**REQUEST FOR INSPECTION**ACTIVITY : **CABLE TERMINATION AND TEST**NOTIFICATION NO. : **PTJ-ELE-RFI- 270** DISCIPLINE : **ELEC**DATE : **27/03/2021**

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
18	D2-030-SUB-ACUPS-1-BAT-A	SUBSTATION					
19	D1-030-SUB-ACUPS-1-BAT-B	SUBSTATION					
20	D2-030-SUB-ACUPS-1-BAT-B	SUBSTATION					
21	D1-030-SUB-DCUPS-CB-A	SUBSTATION					
22	D2-030-SUB-DCUPS-CB-A	SUBSTATION					
23	D1-030-SUB-DCUPS-CB-B	SUBSTATION					
24	D2-030-SUB-DCUPS-CB-B	SUBSTATION					
25	D1-030-SUB-DCUPS-1-BAT-A	SUBSTATION					
26	D2-030-SUB-DCUPS-1-BAT-A	SUBSTATION					
27	D1-030-SUB-DCUPS-1-BAT-B	SUBSTATION					
28	D2-030-SUB-DCUPS-1-BAT-B	SUBSTATION					
29	P-030-SUB-LPDP-1	SUBSTATION					
30	P-030-SUB-ASP-1	SUBSTATION					
31	P-030-EPM1-UPDP-1	SUBSTATION					
32	P1-030-SUB-ACUPS-1	SUBSTATION					
33	P-030-SUB-IRP-1	SUBSTATION					
34	D-030-SUB-LVSWG-1A	SUBSTATION					

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

ITR-QC-0001

Owner : **Egyptian General Petroleum Corporation (EGPC)**

Project No: 01251-100-030
:01251-100-031

Contractor **CONSORTIUM (ENPPI / PETROJET)**

Document No: ITR-QC-0001
Revision No. : 00

REQUEST FOR INSPECTION

ACTIVITY : **CABLE TERMINATION AND TEST**


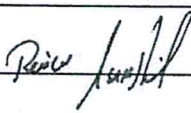
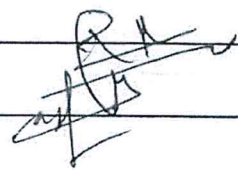
NOTIFICATION NO. : **PTJ-ELE-RFI- 270** DISCIPLINE : **ELEC**

DATE : **27/03/2021**

NO.	DESCRIPTION	LOCATION	DATE / TIME	INSPECTION			REMARKS
				PETROJET	ENPPI	PMC	
35	D-030-SUB-LVSWG-1B	SUBSTATION					
36	D-030-SUB-IRP-1	SUBSTATION					
37	P1-030-SUB-LVSWG-1A	SUBSTATION					
38	P1-030-SUB-LVSWG-1B	SUBSTATION					
39	C1-030-SUB-ACUPS-1	SUBSTATION					
40	C2-030-SUB-ACUPS-1	SUBSTATION					
41	C1-030-SUB-DCUPS-1	SUBSTATION					
42	C2-030-SUB-DCUPS-1	SUBSTATION					
43	P-030-SUB-AVR-1A	SUBSTATION					
44	P-030-SUB-AVR-1B	SUBSTATION					
45	P1-030-SUB-DCUPS-1	SUBSTATION					
46	P-030-SUB-UPDP-1	SUBSTATION					
47	P-030-SUB-DCUPS-1A	SUBSTATION					
48	P-030-SUB-DCUPS-1B	SUBSTATION					

NOTE:

Inspection result : A - Approved B - Reject C - Approved with Comment

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

ITR-QC-0001



EGPC CRUDE OIL TANK FARM



INSPECTION AND TEST REPORT FOR

CABLE TERMINATION AND SPLICING

SYSTEM NO.:

INSPECTION REPORT NUMBER

PTJ-ELE-RFI- 270

INSPECTION DATE & TIME

27/03/2021

ITR NUMBER

ITR-EL-0009

DISCIPLINE

ELEC

SHEET NO

1 OF 1

Item/Tag NO.

For All Cables tags in PTJ-ELE-RFI- 270

Type :-

Core:

Size:

NO.	Description of check	RESULT		
		ACCEPT	REJECT	N/A.
1	Check cable glands are correct type and size as per cable schedule.	✓		
2	Check there are no damages to cores, termination chamber layout is satisfactory, core identification is correct, crimped and pins satisfactory.	✓		
3	Check cable tag is done correctly.	✓		
4	Test and confirm conductor, phase continuity.	✓		
5	Check insulation resistance test (megger) is completed *'	✓		
6	Check Hi-pot test is completed, only for MV/HV cables *''			✓
7	Connect all cores at both ends and confirm all connections are correct as per termination diagram.	✓		
8	Confirm spare cores, screens are earthed and conform to design drawings/specifications	✓		✓
9	Check enclosure cover is installed, no damages and no bolts are missing	✓		
10	Calibration test certificate of testing equipment to be checked.	✓		

Remarks :

*': ITR-EL-006A/B

*'' : ITR-EL-008

	PETROJET	ENPPI	PMC
NAME :			
SIGNATURE			
DATE			

ITR-EL-0009



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.08- FAT Reports & Certificates



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.09- SAT Reports & Certificates



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.10- Electrical Pre-Commissioning Check Lists

PRE-COMMISSIONING CHECK LIST MEDIUM VOLTAGE CABLES EL-31 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : P-030-SUB-IRP-1

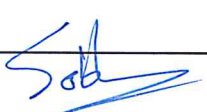
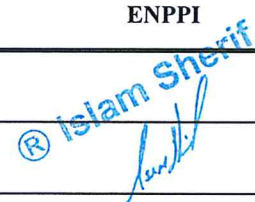
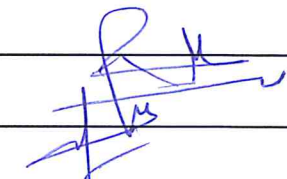
AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	✓	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST MEDIUM VOLTAGE CABLES EL-31 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel
System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel
System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : P-030-SUB-IRP-1

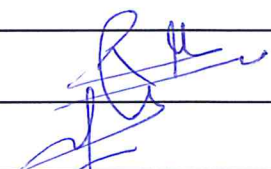
AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Trench markers to be checked w.r.t approved documents.	✓	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	✓	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N/A	
18	Calibration test certificate of testing equipment to be checked.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



**PRE-COMMISSIONING CHECK LIST
MEDIUM VOLTAGE CABLES
EL-31 A**

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:

PRE-COMMISSIONING CHECK LIST SMALL POWER DISTRIBUTION PANEL EL-13 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : 030-SUB-IRP - 1

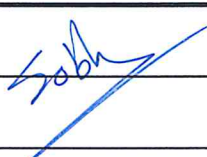
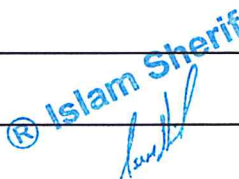
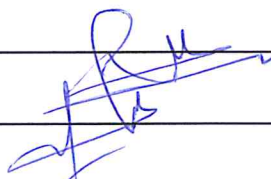
AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	✓	
2	Check equipment assembly for alignment, levelness and foundation fixing details.	✓	
3	Check nameplate details and outgoing feeder labels w.r.t approved documents.	✓	
4	Check the DB and its components for any mechanical damage.	✓	
5	Check equipment earthing connections.	✓	
6	Check connection of gland plate to the earthing busbar.	✓	
7	Check that panel meters & indication lamps are working.	✓	
8	All compartments to be cleaned internally and externally.	✓	
9	All supports needed for power and control cables to be checked.	✓	
10	Check that all connections are tight and secure.	✓	
11	Check all busbar connections and covers according to the approved documents and supplier recommendations.	N/A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST SMALL POWER DISTRIBUTION PANEL EL-13 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel
System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel
System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : 030-SUB-IRP - 1

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Remove any accidental connections between phases and from phases to ground.	N/A	
13	Check polarity of D.C supplies (if any).	N/A	
14	Check equipment anti- condensation heaters and test insulation resistance (**)	✓	
15	Insulation resistance test of busbar bolted connections (Between phases and phases to ground) (*)	N/A	
16	Voltage withstand test of both the main and aux. circuits, this shall be carried out between phases and phases to ground (***)	N/A	
17	Equipment test report and inspection certificate to be checked.	✓	
18	Check availability of vendor documents, including commissioning and start-up instructions.	N/A	

REMARKS AND OBSERVATIONS :

(*) Refer to table [II]

(**) 500 V megger, min. 10 MΩ (Manufacture's test voltage & minimum values should be referenced)

(***) Refer to table [I]

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST SMALL POWER DISTRIBUTION PANEL EL-13 A

VOLTAGE WITHSTAND TEST

TABLE OF TEST VOLTAGES

EQUIPMENT RATED VOLTAGE (kV)	TEST VOLTAGE (KV)
0.6	2

TABLE [I]

NOTES:

All current transformer secondary's shall be short circuit for the duration of the test.
All voltage transformers shall be disconnected by removal of primary and secondary fuses for the duration of the test.
Test shall be carried out with all circuit breakers, isolators and switches closed, but with all the cable cores disconnected.



**PRE-COMMISSIONING CHECK LIST
SMALL POWER DISTRIBUTION PANEL
EL-13 A**

INSULATION TEST

TABLE OF MINIMUM TEST VOLTAGES

EQUIPMENT RATED VOLTAGE (kV)	TEST VOLTAGE (V) (one minute)	MINIMUM INSULATION RESISTANCE (M.OHMS)
0.6	1000	100
0.04	1000	100
CONTROL WIRING	500	10

TABLE [II]

NOTES:

Manufacture's test voltage & minimum values for insulation resistance should be referenced.

PRE-COMMISSIONING CHECK LIST LOW VOLTAGE CABLES EL-30 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : 030-SUB-IRP - 1

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	✓	
4	Check that all cables (power/ control) are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, tightness, termination and joints of cables are correctly executed.	✓	
7	Check where conductors have been terminated using crimped connections; ensure the correct size and type of crimping lugs.	✓	
8	Check that the bending radius of cables is not less than the minimum established.	✓	
9	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
10	Tie wraps to be used for cable and wires fixation.	✓	
11	Cable connections shall be torque tested.	N/A	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST LOW VOLTAGE CABLES EL-30 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : 030-SUB-IRP - 1

AREA : 30

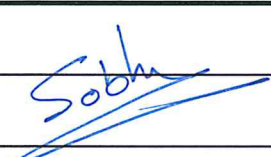
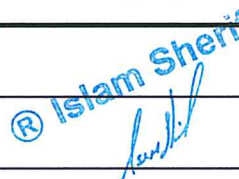
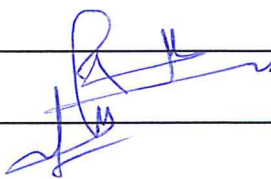
REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Check that buried cables are correctly covered and protected.	✓	
13	Trench markers to be checked w.r.t approved documents.	✓	
14	Check cable glands for tightness & check the correct type of gland has been used for the size and type of installed cables.	✓	
15	Inspect cable laid in trenches, segregation and protection.	✓	
16	Cables to be tested (continuity/insulation resistance). (*)	✓	
17	Equipment test report and inspection certificate to be-checked.	✓	
18	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N/A	
19	Calibration test certificate of testing equipment to be checked.	✓	

REMARKS AND OBSERVATIONS :

(*) Refer to table (III).

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			



**PRE-COMMISSIONING CHECK LIST
LOW VOLTAGE CABLES
EL-30 A**

INSULATION TEST

LOW VOLTAGE CABLES

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
1000V	1000V	200

TABLE [III]

NOTES:

Manufacture's test voltage & minimum values for insulation resistance should be referenced.

PRE-COMMISSIONING CHECK LIST MEDIUM VOLTAGE CABLES EL-31 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : D-030-SUB-IRP-1

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
1	Construction punch list to be checked.	✓	
2	Check cables are correctly fixed to trays and supports.	✓	
3	Check cables through walls or ceilings are correctly sealed.	✓	
4	Check that all cables are installed in accordance with cable lists and approved documents.	✓	
5	Check identification tags of all conductors and wires.	✓	
6	Check connection, termination and joints of cables are correctly executed.	✓	
7	Inspect cables for jacket damage.	✓	
8	Ensure that the correct size and type of crimping lugs have been used.	✓	
9	Check that the bending radius of cables is not less than the minimum established.	✓	
10	Cable markers to be installed before covering buried cables or cables in cable trays.	✓	
11	Tie wraps to be used for cable and wires fixation.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST MEDIUM VOLTAGE CABLES EL-31 A

PROJECT TITLE : EGPC Crude Oil Tank Farms Project, Agrood Area 30 (Module-01)

PROJECT NUMBER : 1251-100

DISCIPLINE : Electrical

SYSTEM NAME : Substation Interposing Relay Panel System

SYSTEM ID : 030-EL-009

SUB-SYSTEM NAME : Substation Interposing Relay Panel System

SUB-SYSTEM ID : 030-EL-009

ITEM TAG No. : D-030-SUB-IRP-1

AREA : 30

REF. DWGs/DOCs :

No.	DESCRIPTION	RESULT	PL
		OK/NA/PL	ITEM No.
12	Trench markers to be checked w.r.t approved documents.	✓	
13	Check cable glands for tightness and check the correct type of gland has been used for the size and type of installed cables.	✓	
14	Inspect cable laid in trenches, segregation and protection.	✓	
15	Cables to be tested (continuity/insulation resistance).(*)	✓	
16	Equipment test report and inspection certificate to be-checked.	✓	
17	Check availability of vendor documents, including commissioning and start-up instructions. (If Any)	N/A	
18	Calibration test certificate of testing equipment to be checked.	✓	

REMARKS AND OBSERVATIONS :

OK: NO OBJECTION, NA: NOT APPLICABLE, PL: PUNCH LIST.

COMPANY	CONST. CONTRACTOR	ENPPI	CUSTOMER
NAME			
SIGNATURE			
DATE			

PRE-COMMISSIONING CHECK LIST MEDIUM VOLTAGE CABLES EL-31 A

INSULATION TEST

EL-31 A

CABLE VOLTAGE LEVEL	D.C TEST VOLTAGE	MINIMUM INSULATION RESISTANCE (M.OHMS).
3.3kV	2500V	200
6.6kV & Above	5000V	200

TABLE [I]

NOTES:



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

12.11- Electrical Supplier Check Lists & Reports



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

13- Electrical Commissioning



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

13.01- Electrical -Commissioning Check Lists



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

13.02- Electrical Supplier Check Lists & Reports



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

14- Red Marked-up Drawings



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

14.01- P&ID



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

14.02- Instrumentation Drawings



Project: 01251-100
CRUDE OIL TANK FARM PROJECT (AGROOD AREA)



System ID	030-EL-009
System Description	Substation Interposing Relay Panel System

14.03- Electrical Drawings